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COOPERATIVE EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS

United States Department of Agriculture and
State Agricultural Colleges, Cooperating

BOYS' AND GIRLS' CLUB WORK

Selection, Preparation, and Planting of the Potato Plat

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For planting, choose potatoes of uniform shape and medium size

Circular 7

Office of Extension Work, North and West
States Relations Service

SELECTION, PREPARATION AND PLANTING OF THE POTATO PLAT.

HOW TO SELECT THE PLAT.¹

SELLECT a plat, if possible, near to where you live. A plat easily reached will save time and will be more likely to receive constant attention and care.

Try to secure a gravelly loam or a heavy sandy loam soil, though one may succeed with other soils. In all cases the soil must be well drained. Light sands and stiff clays are the hardest to put into good condition. In any case, select the best soil possible and be especially careful to see that it is supplied with humus. If humus is lacking it may be added by ap-

plying stable manure or decaying vegetable matter. If possible, avoid land on which scabby potatoes have grown. To avoid scab it is advisable to plant potatoes not oftener than once in three years on the same land.



FIG. 1.—A potato club champion.

¹ A plat of land 24 feet wide by 227 feet long contains about one-eighth of an acre. This width allows 9 rows 32 inches apart or 8 rows 36 inches apart. The length of such rows is also convenient for cultivation. There are 5,445 square feet in one-eighth of an acre, so if that number is divided by the width of the plat in feet the quotient will be the length in feet required for one-eighth of an acre.

A plentiful supply of vegetable matter worked into the soil thoroughly and deeply will make a clay soil more mellow and a light sandy soil more compact. This will favor a better distribution of soil moisture in clay and will increase the amount of moisture which either kind of soil will supply to the crop during the season. A plentiful supply of vegetable matter will also put the soil in condition to use commercial fertilizer to better advantage. A heavy sod plowed down is one of the best sources of vegetable matter for a soil. A clover or alfalfa sod will furnish, in addition, some of the nitrogen needed for the crop.

HOW TO PREPARE THE PLAT FOR PLANTING.

The soil of the plat should be rich, fine, and firm. Thorough preparation before planting is half the battle. A deep and mellow seed bed is best. To secure this, deep plowing and thorough harrowing are necessary. If the plat has been plowed in the fall and the ground has become packed again during the winter, it should be replowed before planting the seed. The plat should be gone over with a disc or cut-away harrow to thoroughly pulverize the soil and then with a smoothing harrow to secure a fine surface.

Unless the soil used is very fertile, stable manure should be used at the rate of 10 to 20 two-horse loads per acre and thoroughly mixed with the soil. If the plat is covered with a light growth of some green crop, a smaller application of manure may be used. In most cases it will pay to apply some commercial fertilizer also.

Heavy sod fields when plowed in the fall should generally be plowed shallow. They should be plowed deeper when plowed in the spring. Manure plowed under in the spring should be well rotted, if possible. If the land is infected with potato scab, no manure should be used, as it increases the development of scab.

Spring plowing should be delayed as long as possible when clover or rye has been grown as a winter cover crop, in order that there may be a larger amount of vegetable matter to turn under. Rye, however, should be plowed under before it becomes woody, otherwise it may cause a deficiency of moisture in the surface soil if a dry season follows.

Commercial fertilizer may be applied broadcast and harrowed in, or distributed in the row at the time of planting. In no case should it be allowed to come in contact with the seed.

PLANTING THE PLAT.

The time to plant depends upon (1) whether the variety is an early or late maturing one; (2) whether the growing season in the region is long or short; and (3) whether the region is subject to a hot, dry summer or not.

Select the variety of potato that does best in the neighborhood. If no acceptable variety is grown, then write to the State agricultural college or to the United States Department of Agriculture for suggestions. The early varieties most generally grown in the North are Irish Cobbler and Extra Early Eureka. Green Mountain, Rural New Yorker, Sir Walter Raleigh, and Carman are the most common late varieties. In the West, Early Ohio, Early Michigan, and Early Acme are the early varieties, and the Carman, Sir Walter Raleigh, Rural New Yorker, Peerless Pearl, and Burbank among the late varieties more generally grown.

For planting, choose potatoes of uniform shape and medium size. These should run from 4 to 8 ounces in weight. Reject all that show any sign of disease. Before cutting, treat the selected seed potatoes to kill scab germs by immersing for 2 hours in a solution made by mixing water and formalin in the proportions of 15 gallons of water to $\frac{1}{2}$ pint of formalin. Upon removing the tubers from the solution spread them out to dry. A small amount of solution in the same proportions may be used for small quantities of seed. Formalin can be bought at most drug stores.

Cut the seed into large blocky pieces, making sure that each piece has at least one eye. Do not use any potato for seed that shows any discoloration of the flesh when a thin slice is removed from the stem end. As a rule, it is better to cut and plant the seed the same day. However, when the soil is hot and rather dry, it is advisable to cut the seed a day or two in advance of planting, as the cut surfaces then dry or heal over and there will be no further loss of moisture when the seed is planted. If the seed is cut in advance, it should be spread out thinly in a shady place to prevent heating.

Plant the seed 4 inches deep and from 10 to 18 inches apart in furrows or rows from 32 to 36 inches apart. The closer planting (10 by 32 inches) is recommended only on rich, moist land. On land which is not very rich or is apt to lack moisture, plant 18 by 36 inches. Early potatoes will stand closer planting than late ones. Cover seeds as quickly as possible after planting.

NOTE.—This is one of a series of follow-up circulars (the O series), printed for the exclusive use of club members and club leaders. Other publications relating to potatoes may be had by writing to your State agricultural college or to the United States Department of Agriculture.